Exploring Electricity

Investigation 4-5 Study Guide

Grade 3

Investigation 4: Examining Electrical Properties

1. Substances that do not easily conduct electricity are called insulators.
2. Examples of insulators - rubber, plastic, wood, glass
3. Substances that are able to conduct electricity are called conductors.
4. Examples of conductors - copper, aluminum, metal
5. Wires are made with a conductor, coated with an insulator.

Investigation 5: Exploring Series and parallel Circuits

1. In a series circuit the objects are arranged in a single path.
2. In a series circuit if one bulb doesn’t light up the whole strand will not work (think Christmas lights)
3. In a parallel circuit electrons flow in several different paths.
4. In a parallel circuit if one bulb burns out but the rest work it is a parallel circuit.

Things to Know

* Vocabulary - Lab Learner Pages 27 and 36
* Be able to give TWO examples EACH for Conductors and Insulators
* Be able to identify objects as Conductors or Insulators
* Properties of Series Circuits and Parallel Circuits (Lab Learner p.42)
* Short Answer Questions:
  + If a light bulb is broken or missing in a parallel circuit, will the other bulb light? Explain.
  + How would you get two light bulbs to light in a series circuit? Explain the steps you would take to set up a series circuit using wires, a battery and TWO light bulbs.